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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,751	03/18/2004	Yoshinori Aoshima	4703-0105PUS1	5348
2292	7590	04/28/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			D AGOSTA, STEPHEN M	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/802,751	AOSHIMA ET AL.	
	Examiner	Art Unit	
	Stephen M. D'Agosta	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-10,13,14 and 17 is/are rejected.
- 7) ☒ Claim(s) 2, 6, 11, 12 and 15-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

1. The examiner has changed his rejection for the amended claims 1, 5 and 17.
2. For unamended original claims 9 and 13, the examiner believes he has established a prima facie case since he has shown column/line numbers which read on the disclosure and how/why one skilled would combine the art to arrive at the applicant's design. In general, **Nickum** teaches portable communication devices that interconnect and require knowledge of battery levels. **Hawkins** teaches a combined PDA/Cell phone whereby Battery Level Data (figure 4, #490) is monitored and transferred between the devices while **Usui** teaches a device which has 1st and 2nd wireless and power control sections/units whereby a battery of the second wireless section intermittently toggled from ON to OFF in order to conserve battery power (abstract).
3. It appears that the new material added in the amended claims simple restates that which has been deleted. Hence, the applicant has not amended as per the recommendations from the examiner (see section which show which claims are objected to as containing novel material).
4. The new title is acknowledged by the examiner. Thank you.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-4 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Nickum and further in view of Hawkins et al. US 6,516,202 and Usui 2002/0025839.

As per **claims 1 and 9**, Nickum teaches a small electronic device (figures 1-2 show a laptop which has cell phone/pager plug-ins) comprising:

a battery (laptop, phone and pager inherently have batteries);

a battery level detection unit for detecting a charge level of the battery (the cell phone and laptop inherently have battery level detection units, eg. phones and laptops typically have an "icon" on the display that reflects how much battery power remains);

a display unit for displaying various data (laptop, phone and pager inherently have a display (eg. LCD, etc) which is used to display information to the user);

but is silent on

a communication unit for exchanging data with an external device and a comparison unit for comparing a battery level data of the external device detected by external device with its own battery level data output from the battery level detection unit,

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wherein the small electronic device ~~receives battery level data of the external device detected by the external device, compares the data with its own battery level data output from the battery level detection unit, and displays a comparison result on the display unit.~~

Nickum does teach "There is a need for a better way to obtain the benefits of each of these devices in a more convenient manner. There is a further need for better ways to manage batteries used to power such devices." (Para. #0007) and that power can be supplied to all the devices from one power supply, "When cellular telephone 14 is placed into cradle 13, suitable connections between portable computer 12 and cellular telephone 14 are made to allow the cellular telephone 14 and the portable computer 12 to operate from the power supply 18 of portable computer 12." (Para. 0021). Hence one skilled understands that the user would require knowledge of both the cell phone's battery level along with the laptop's battery level (since it is the primary source of power – eg. if the phone's battery is running low, the user will want to check to see if sufficient laptop battery power is available to re-charge the phone).

Hawkins teaches a combined PDA/Cell phone whereby Battery Level Data (figure 4, #490) is monitored and transferred between the devices "For one embodiment, the microcontroller 460 also monitors the battery level signal 490. If the battery level signal 490 indicates that the organizer does not have a battery in or if the battery level is below a threshold, the microcontroller 460 does not send the interrupt signal 485. Generally, when a call is received, the organizer is asked to respond. Using the battery level signal 490, the organizer is not asked to respond when the battery level is below the threshold. This prevents the stand-by power from being exhausted, possibly leading to memory loss. (C4, L37-46) .

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Further to this point, **Usui** teaches a device which has 1st and 2nd wireless and power control sections/units whereby a battery of the second wireless section intermittently toggled from ON to OFF in order to conserve battery power (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Nickum, such that a communication unit for exchanging data with an external device, wherein the small electronic device receives battery level data of the external device detected by the external device, compares the data with its own battery level data output from the battery level detection unit, and displays a comparison result on the display unit, to provide means for the user to know the battery level status of each device's battery.

As per **claims 3-4**, Nickum teaches claim 1, wherein the small electronic device is a portable PC device/Cell phone (see figures 1-2 which teach a laptop, cell phone and/or pager).

Claims 5, 7-8, 10 and 13-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Nickum and further in view of Hawkins et al. US 6,516,202 and Nakai US 6,928,567.

As per **claims 5 and 13**, Nickum teaches a small electronic device (figures 1-2 show a laptop which has cell phone/pager plug-ins) comprising:

- a battery (laptop, phone and pager inherently have batteries);

- a battery level detection unit for detecting a charge level of the battery (the cell phone and laptop inherently have battery level detection units, eg. phones and laptops typically have an "icon" on the display that reflects how much battery power remains);

- a display unit for displaying various data (laptop, phone and pager inherently have a display (eg. LCD, etc) which is used to display information to the user);

but is silent on

a communication unit for exchanging data with an external device and a comparison unit for comparing: a operating time data of the external device calculated from a battery level of the external device detected by the external device with its own operating time data calculated from a battery level output from the battery level detection unit, wherein the small electronic device ~~receives operating time data of the external device calculated from a battery level detected by the external device, compares the data with its own operating time data calculated from a battery level output from the battery level detection unit, and displays a comparison result on the display unit.~~

Nickum does teach "There is a need for a better way to obtain the benefits of each of these devices in a more convenient manner. There is a further need for better ways to manage batteries used to power such devices." (Para. #0007) and that power can be supplied to all the devices from one power supply, "When cellular telephone 14 is placed into cradle 13, suitable connections between portable computer 12 and cellular telephone 14 are made to allow the cellular telephone 14 and the portable computer 12 to operate from the power supply 18 of portable computer 12. (Para. 0021). Hence one skilled understands that the user would require knowledge of both the cell phone's battery level along with the laptop's battery level (since it is the primary source of power – eg. if the phone's battery is running low, the user will want to check to see if sufficient laptop battery power is available to re-charge the phone).

Hawkins teaches a combined PDA/Cell phone whereby Battery Level Data (figure 4, #490) is monitored and transferred between the devices "For one embodiment, the microcontroller 460 also monitors the battery level signal 490. If the battery level signal 490 indicates that the organizer does not have a battery in or if the battery level is below a threshold, the microcontroller 460 does not send the interrupt signal 485. Generally, when a call is received, the organizer is asked to respond. Using the battery level signal

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490, the organizer is not asked to respond when the battery level is below the threshold. This prevents the stand-by power from being exhausted, possibly leading to memory loss. (C4, L37-46).

Nakai teaches "Battery information is transmitted from a recording and playback apparatus to a host computer. In the host computer, based on the time for which operation can be continued, corresponding to the current operating status and the remaining battery level, which is stored in battery information, a warning is output, the data of a cache memory is written, data writing prohibition is set, and a forced closing process is performed" (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Nickum, such that a communication unit for exchanging data with an external device, wherein the small electronic device receives operating time data of the external device calculated from a battery level detected by the external device, compares the data with its own operating time data calculated from a battery level output from the battery level detection unit, and displays a comparison result on the display unit, to provide means for the user to know the battery level status and operating time remaining of each device's battery.

As per **claims 7-8**, Nickum teaches claim 5 wherein the small electronic device is a portable PC device/Cell phone (see figures 1-2 which teach a laptop, cell phone and/or pager).

As per **claims 10 and 14**, Nickum teaches claim claim 9/13, **but is silent on** wherein the transmitting of the battery level data is triggered by satisfying predetermined conditions.

Bryne teaches transmitting data from one device to another device if/when the battery level data satisfies a predetermined condition "FIG. 2 shows a more

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detailed embodiment 20 of the first aspect of the present invention. Transmitter 23 may transmit a signal 26 to a wrist watch 25 that contains an alert mechanism 24. When signal 26 is received by alert mechanism 24, the mechanism may indicate to the user that an event has occurred in personal electronic device 22. Transmitter 23 may be configured to identify the personal electronic device having the event (such as the user's phone), identify the type of event on the device (such as that fact that the phone is ringing or the phone's battery is low), and identify particulars of the event (such as the telephone number or the phone's battery level). (eg. low battery – see C2, L55-67).

It would have been obvious to one skilled in the art at the time of the invention to modify Nickum, such that the transmitting of the battery level data is triggered by satisfying predetermined conditions, to provide means for the user to be alerted to a low battery situation.

Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Nickum and further in view of Hawkins et al. US 6,516,202 and Wang 2003/0013506.

As per **claim 17**, Nickum teaches a small electronic device (figures 1-2 show a laptop which has cell phone/pager plug-ins) comprising:

- a battery (laptop, phone and pager inherently have batteries);

- a battery level detection unit for detecting a charge level of the battery (the cell phone and laptop inherently have battery level detection units, eg. phones and laptops typically have an “icon” on the display that reflects how much battery power remains)

- a display unit for displaying various data (laptop, phone and pager inherently have a display (eg. LCD, etc) which is used to display information to the user);

- but is silent on**

a battery housing attached to said small electronic device as a driving power source and a communication unit for transmitting the charge level (**eg. *Battery Indicator***) to an external device to display a comparison result between the charge level of the small electronic device and a charge level of the external device and the Battery Level Detection unit having memory;

Nickum does teach "There is a need for a better way to obtain the benefits of each of these devices in a more convenient manner. There is a further need for better ways to manage batteries used to power such devices." (Para. #0007) and that power can be supplied to all the devices from one power supply, "When cellular telephone 14 is placed into cradle 13, suitable connections between portable computer 12 and cellular telephone 14 are made to allow the cellular telephone 14 and the portable computer 12 to operate from the power supply 18 of portable computer 12. (Para. 0021). Hence one skilled understands that the user would require knowledge of both the cell phone's battery level along with the laptop's battery level (since it is the primary source of power – eg. if the phone's battery is running low, the user will want to check to see if sufficient laptop battery power is available to re-charge the phone).

Hawkins teaches a combined PDA/Cell phone whereby Battery Level Data (figure 4, #490) is monitored and transferred between the devices "For one embodiment, the microcontroller 460 also monitors the battery level signal 490. If the battery level signal 490 indicates that the organizer does not have a battery in or if the battery level is below a threshold, the microcontroller 460 does not send the interrupt signal 485. Generally, when a call is received, the organizer is asked to respond. Using the battery level signal 490, the organizer is not asked to respond when the battery level is below the threshold. This prevents the stand-by power from being exhausted, possibly leading to memory loss. (C4, L37-46) . **With further regard to the BLD unit having a memory,** Hawkins teaches a

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mobile unit with extension device that contains a memory (C4, L5-15). The examiner notes that either one memory would be used for "all" operations and/or separate memories would be used. The extension would either send the battery data immediately and/or store it for future transmission. The examiner interprets this as a design choice as to how one skilled would lay out the device with regard to using one or more memories. Multiple memories would create added complexity.

Wang teaches a phone with a battery housing/assembly (abstract and figures).

It would have been obvious to one skilled in the art at the time of the invention to modify Nickum, such that a battery housing attached to said small electronic device as a driving power source and a communication unit for transmitting the charge level (*eg. Battery Indicator*) to an external device to display a comparison result between the charge level of the small electronic device and a charge level of the external device with memory, to provide means for the device to have a battery housing whereby Battery Level data can be determined by the user for all devices and be stored/transmitted during idle communication bus times.

Allowable Subject Matter

Claims 2, 6, 11-12 and 15-16 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art or record, alone or in combination, does not teach:

Claim 2: A small electronic device according to claim 1, wherein the comparison result comprises lower battery level data selected from the battery level data of the external device and the battery level data of the small electronic device.

Claim 6: A small electronic device according to claim 5, wherein the comparison result comprises shorter operating time data selected from the operating time data of the external device and the operating time data of the small electronic device.

Claim 11: wherein the transmitting of the battery level data is triggered in response to a request from the second small electronic device.

Claim 12: wherein the comparison result in the displaying step comprises lower battery level data selected from the battery level data of the first small electronic device and the battery level data of the second small electronic device.

Claim 15: The monitoring method according to claim 13, wherein the transmitting of the operating time data is triggered in response to a request from the second small electronic device.

Claim 16: The monitoring method according to claim 13, wherein the comparison result in the displaying step comprises shorter operating time data selected from the operating time data of the first small electronic device and the operating time data of the second small electronic device.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

STEVE M. D'AGOSTA
PRIMARY EXAMINER



4-20-06